VOLUME 2, ISSUE 1 WINTER 2011-2012

The Gold and Silver Spotter

National Weather Service Reno, NV

SKYWARN

NOT ALL LA NIÑA WINTERS ARE CREATED EQUAL

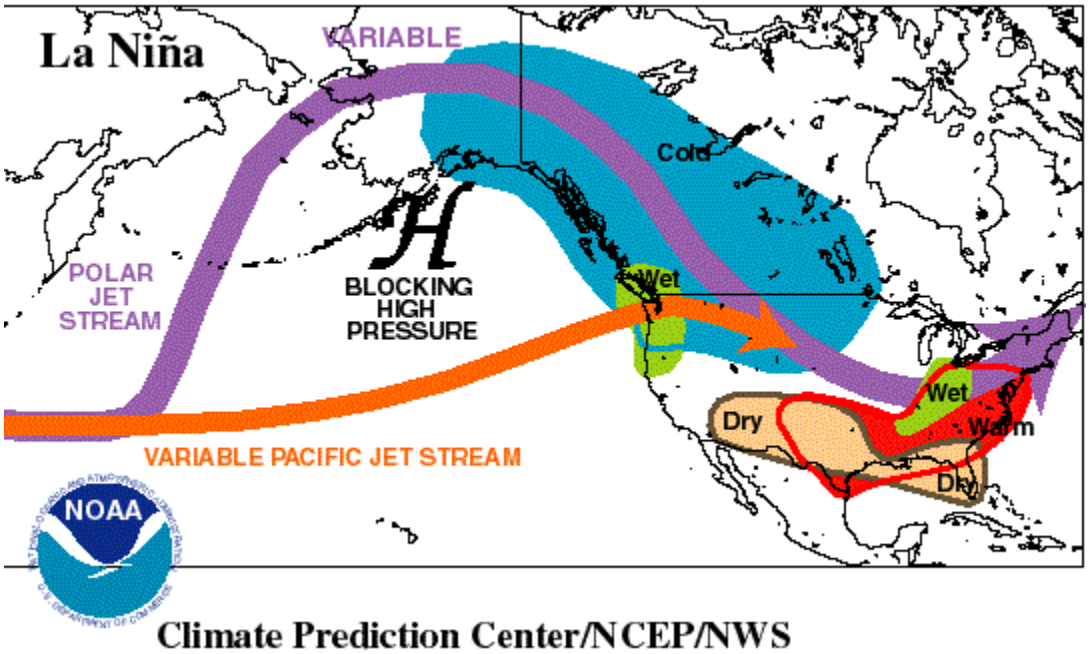
BY ZACH TOLBY WITH FORWARD BY DAWN FISHLER

Our Mission:

"The National Weather Service (NWS) provides weather, hydrologic and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community."

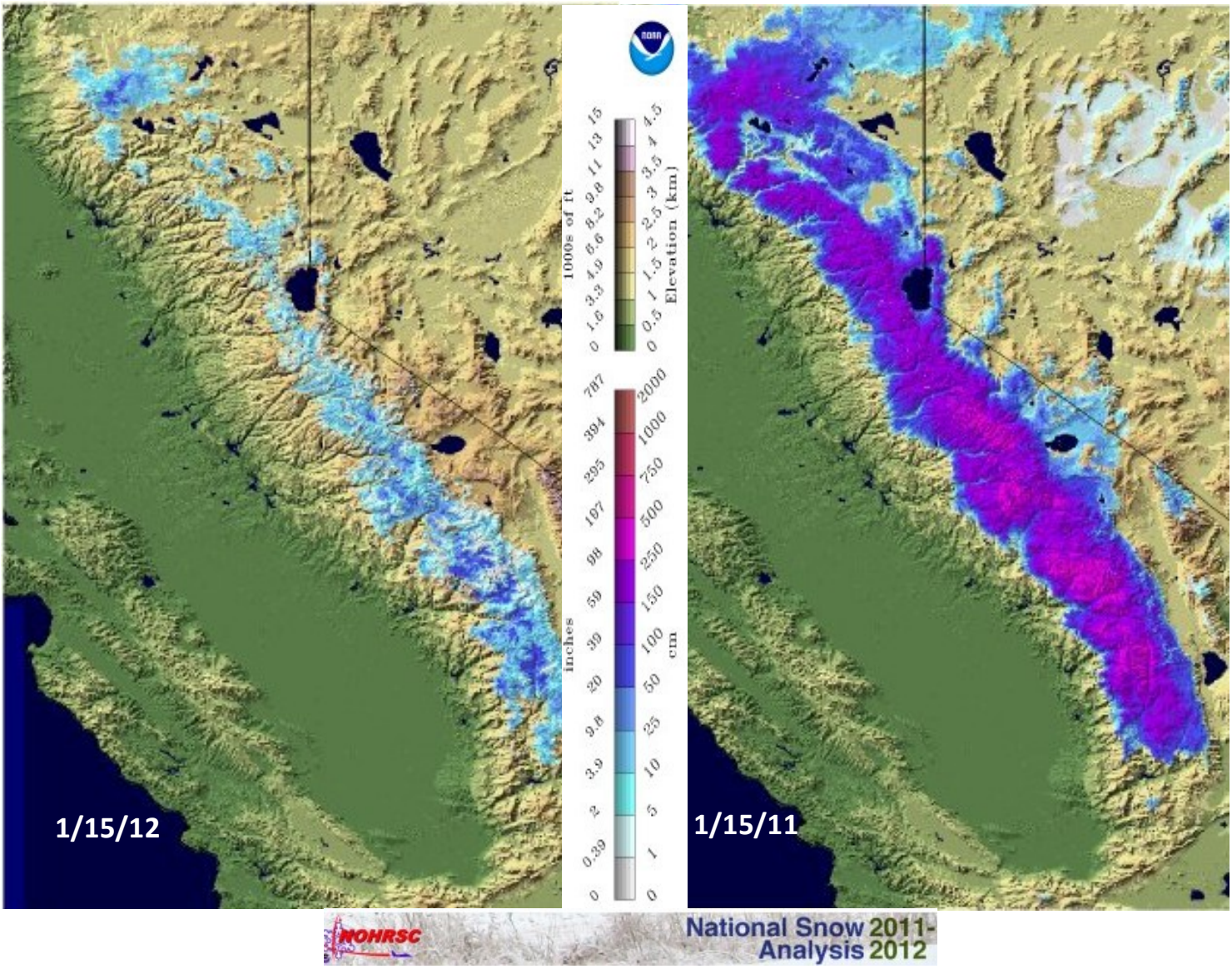
Why has this winter been so dry and last winter so wet when both years there were La Niña conditions in the Pacific? This is a popular question we have been getting this year and unfortunately the answer is not that simple.

Last year was a strong La Niña with the stationary high pressure further south and west of the coast allowing the jet stream and associated storm track to drop out of the Gulf of Alaska and bring copious amounts of precipitation to the Sierra. This season the La Niña signal is weaker with a high pressure ridge over the west coast allowing very little precipitation to make it to the Sierra. It is important to understand that La Niña can either be wet or dry and rarely brings average precipitation to the Sierra. There are other oscillations that couple with La Niña and have an impact on whether we end up with above or below average precipitation. Other oscillations that affect the large scale patterns are the AO (Artic Oscillation), PNA (Pacific-North American Oscillation), the PDO (Pacific Decadal Oscillation), and the MJO (Madden Julian Oscillation). Besides the PDO the other oscillations are difficult to predict past 1-2 weeks and how they modulate the ENSO (El Niño Southern Oscillation) is not well understood. Also when you overlay ENSO with other oscillations you end up with only a couple years in each category making it difficult to find strong correlations.



INSIDE THIS ISSUE:

SNOW DEPTH ACROSS THE SIERRA
1/15/2012 VS. 1/15/2011



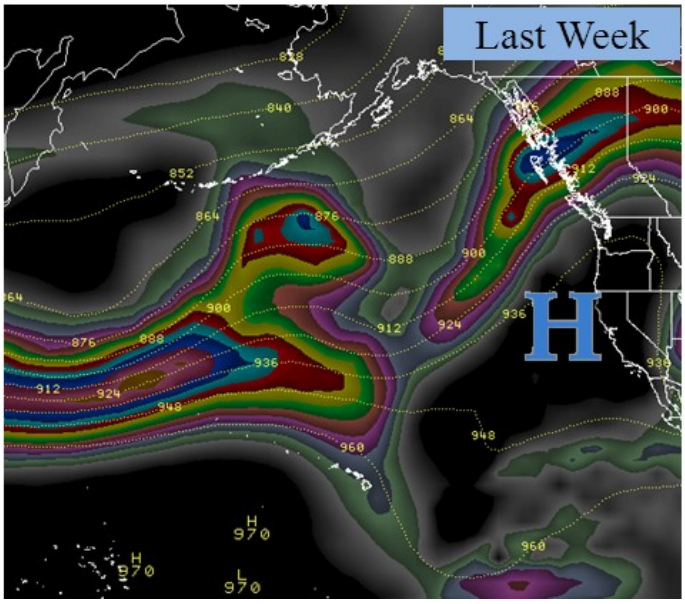
It has been an extremely dry winter so far this year, with conditions in the Sierra more reminiscent of mid-October than mid-January. A cold front this past Sunday night brought some light snow to the region, but totals were less than 2 inches. This band of snow brought the first measurable precipitation to the Reno Airport in 56 days, which broke the previous winter season (Nov-Mar) dry record of 54 days that ended January 24, 1961.

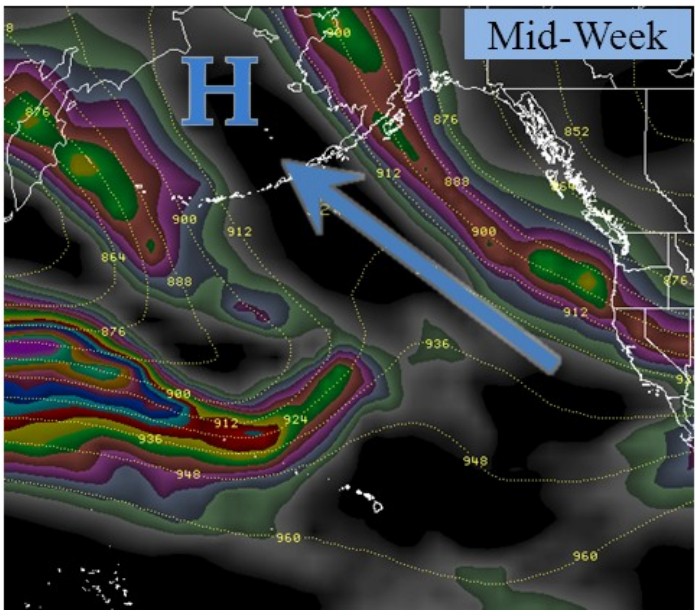
The pattern will transition to wetter this week, with plenty of rain and high elevation snow expected. Please see next page for details.

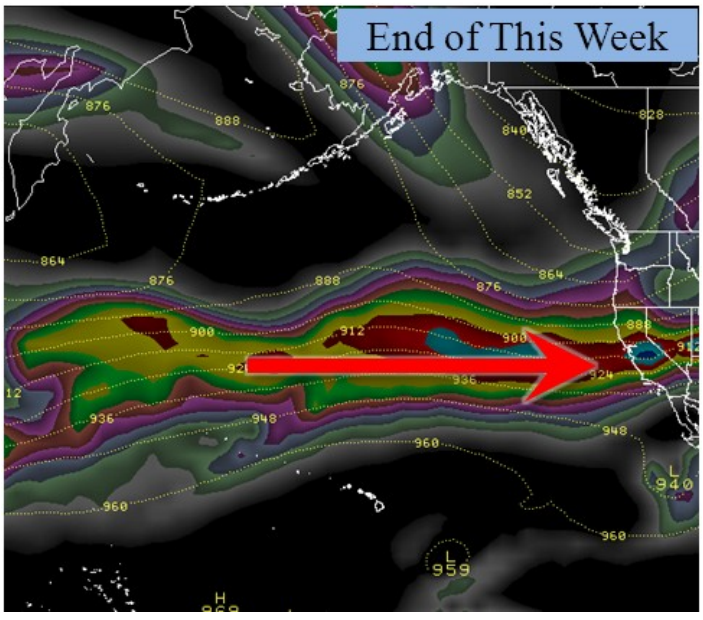
National Snow Analysis website:

http://www.nohrsc.noaa.gov/nsa/

PATTERN CHANGE THIS WEEK



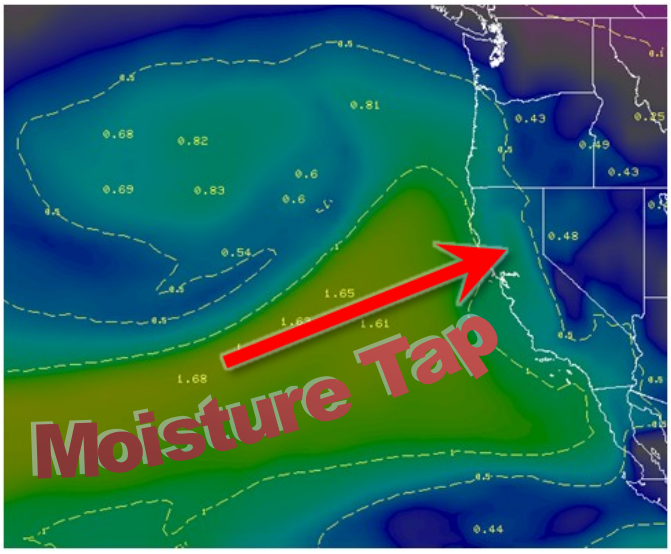




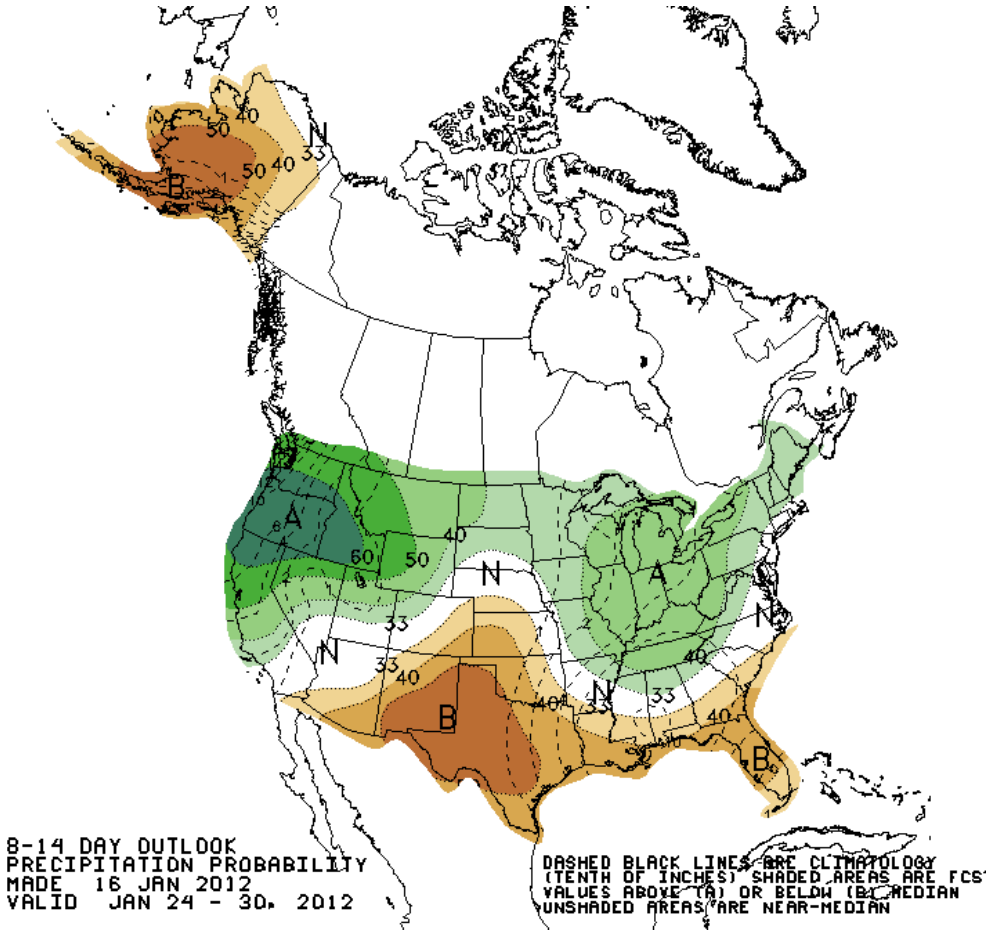
The three images on the left are showing the jet stream position as of last week (top), where it will be on Tuesday/Wednesday of this week (middle) and, where it will be by the end of this week (bottom). The area of high pressure which has blocked storm systems from reaching the west for nearly 2 months now (top), will finally retrograde out over the Bering Sea (middle) allowing for systems to now push into the west again. The strong jet stream will combine with a deep sub-tropical moisture tap (bottom two images) to bring significant precipitation to the region by the latter half of this week and lasting through the weekend.

It is still too early to determine the exact amount of precipitation and snow, as well as the snow levels. However, significant amounts of rain and snow are likely with snow levels oscillating from valley floors up to 7500 feet over the course of multiple systems.

We would greatly appreciate you either calling the spotter hotline or using e-spotter to report any significant weather conditions, especially those highlighted on the back page! Thanks for being our eyes on the ground, we appreciate what you do!

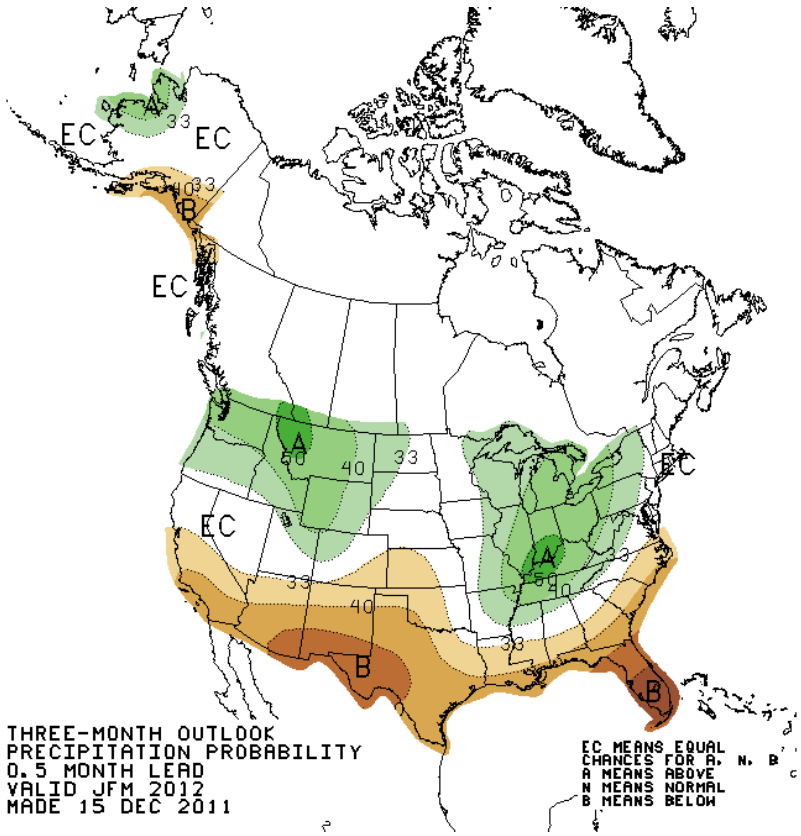


CLIMATE PREDICTION OUTLOOK



The image on the left is showing the 8-14 day precipitation outlook from the Climate Prediction Center valid for the last week of January. It is indicating above normal chances for precipitation for the northern tier of the country with below normal chances for the southern tier as well as Alaska. For our local area, there is a 40-60 percent chance for having above normal precipitation. This lines up well with the strong jet and moisture available in the Pacific.

The image on the right is showing the 3 month precipitation outlook from the Climate Predication Center valid for January, February, and March; made back on December 15. It is indicating above normal chances for precipitation through a portion of the northern tier of the states, with below normal for the southern tier. For our local area, the forecast is still for equal chances of above or below normal precipitation, which does correlate with a typical La Niña.



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Welcome all our new spotters! A big thanks to all of you who joined the spotter talks which were held about 6 weeks ago! It was great to meet our current spotters as well as those who joined the spotter network. We are glad to have you on board and look forward to hearing your reports this winter, especially now that we're finally going to get some winter weather!

Check us out on Facebook!

https://www.facebook.com/US.NationalWeatherService.Reno.gov

WINTER REPORTING GUIDELINES

While it is always important to report significant weather year-round, this time of year we would especially like:

- Snow reports: How much fell and in how long of a period as well as current snow depth if applicable
- Heavy Rain and/or any flooding
- Strong and gusty winds above 45 mph
- Freezing Rain or freezing drizzle
- Low visibility due to any weather phenomenon such as heavy rain/snow or fog